

What is claimed is:

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1. A small footprint device comprising:
a. at least one processing element,
b. memory,
c. a context barrier, for isolating program modules
from one another using said memory and said processing
element, and
d. one context having access to all program modules
without context barrier constraints.

2. The small footprint device of claim 1 in which
said context is used for access to at least one program
module across a context barrier.

3. The small footprint device of claim 1 in which
said context barrier allocates separate name spaces for
each program module.

4. The small footprint device of claim 3 in which
said context can access at least two program modules even
though they are located in different respective name
spaces.

5. The small footprint device of claim 1 in which said context barrier allocates separate memory spaces for each program module.

6. The small footprint device of claim 5 in which said context can access at least two program modules even though they are located in different respective memory spaces.

7. The small footprint device of claim 1 in which said context barrier enforces security checks on at least one of a principal, an object and an action.

8. The small footprint device of claim 7 in which at least one security check is based on partial name agreement between a principal and an object.

9. The small footprint device of claim 8 in which said context can access at least one other context without said at least one security check.

10. The small footprint device of claim 7 in which at least one security check is based on memory space agreement between a principal and an object.

11. The small footprint device of claim 10 in which said context can access at least one other context without said at least one security check.

12. A method of operating a small footprint device, comprising the step of separating program modules using a context barrier and permitting one context access to at least one other context without context barrier constraints.

13. The method of claim 12 in which the context barrier will not permit a principal to perform an action on an object unless both principal and object are part of the same context unless the principal is part of said one context.

14. A method of permitting access to information on a small footprint device from a first program module to a second program module separated by a context barrier, comprising the step of creating a context having access to all program modules without context barrier constraints.

15. The method of claim 14 in which said context is a supercontext.

16. A method of communicating across a context barrier separating program modules on a small footprint device, comprising the steps of:

- 5 a. creating an context having access to all program modules without context barrier constraints; and
- b. permitting said context to access information of another program module across said context barrier.

17. A method of communicating across a context barrier separating program modules on a small footprint device, comprising the steps of:

- 5 a. creating an context having access to all program modules without context barrier constraints; and
- b. permitting at least one program module to access information of another program module across said context barrier using said context.

18. A computer program product, comprising:

- a. a memory medium; and
- 5 b. a computer controlling element comprising instructions for implementing a context barrier on a small footprint device and for one context to have access to all program modules without context barrier constraints.

19. The computer program product of claim 18, in which said medium is a carrier wave.

20. A computer program product, comprising:

a. a memory medium; and

b. a computer controlling element comprising instructions for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one context to have access to all program modules without context barrier constraints.

21. The computer program product of claim 20, in which said medium is a carrier wave.

22. A carrier wave carrying instructions over a communications link for implementing an context having access to all program modules on a small footprint device without context barrier constraints.

23. A carrier wave carrying instructions over a communications link for implementing a context barrier separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one context to access all programs without context barrier constraints.

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